

Tube based on vulcanized elastomer and fluoropolymer

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Abstract

The present invention relates to a tube having in its radial direction, from the inside outwards: 1) a so-called inner layer intended to come into contact with a circulating fluid, the said inner layer comprising (i) a fluoropolymer, (ii) optionally an electrically conductive product and (iii) a triblock copolymer ABC, the three blocks A, B, and C being linked together in this order, each block being either a homopolymer or a copolymer obtained from two or more monomers, the block A being linked to the block B and the block B to the block C by means of a covalent bond or an intermediate molecule linked to one of these blocks via a covalent bond and to the other block via another covalent bond, and such that: block A is compatible with the fluoropolymer, block B is incompatible with the fluoropolymer and is incompatible with block A, block C is incompatible with the fluoropolymer, block A and block B, 2) optionally, a binder layer, 3) a layer of vulcanized elastomer. According to a second form of the invention the inner layer itself consists of two layers, one containing an electrically conductive product and the other containing no electrically conductive product. Advantageously, the layer which is in contact with the circulating fluid contains the electrically conductive product. According to a third form of the invention a layer of fluoropolymer is provided between the inner layer and the binder layer or between the inner layer and the layer of vulcanized elastomer if there is no binder. The second and third forms of the invention may exist simultaneously for the same tube.

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